

**RESPONSES TO EPA COMMENTS
GROUNDWATER SAMPLING
AIRPORT/KLONDIKE AREA**

**Pratt & Whitney
East Hartford, Connecticut**

RCRA RECORDS CENTER
FACILITY Pratt & Whitney
I.D. NO. CTD 90072001
FILE LOC. R-5
OTHER RDMS # 2210

General Comments

1. In the absence of a clay surface, at what depths will groundwater samples be collected?

It is extremely unlikely that a clay surface will not be encountered. In that unlikely situation, groundwater samples will be collected at ten foot intervals until refusal is encountered.

2. During well and well point installation, soil samples should be collected when contamination is observed.

During installation of the Geoprobe screenpoint groundwater sampling locations and monitoring wells, soil samples will be collected from the borings in continuous 2-foot intervals to the top of the clay surface. The soil samples will be submitted to the LEA Analytical Laboratory and screened for the presence of target VOCs, including benzene (BZ), ethylbenzene (EBZ), tetrachloroethylene (PCE), toluene (TL), 1,1,1-trichloroethane (TCA), trichloroethylene (TCE), and xylenes (XYL). Select soil samples may also be submitted to a fixed laboratory for analysis of VOCs.

3. More ground surface elevations should be shown on the maps.

The map is provided with one-foot contour intervals. The available spot elevations for the area can be shown if necessary. Please note that the additional information may cause the mapping to be more difficult to read at the current scale and view.

4. Please analyze VOCs samples as soon as possible to increase the accuracy of sample results.

As requested, rush turnaround times can be requested of the P&W laboratory contractor. However, rush turnaround times have additional costs associated with them, as much as double for seven to five days turnaround times depending on the laboratory. Depending on the laboratory work load, the faster turnaround times may or may not be possible. Regardless, the turnaround times will be within the times specified in "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", EPA Publication SW-846.

5. Please include metals and VOCs in the analyte list.

- Chime in, Juan

As the contaminants of concern of this area are VOCs, the analyte list only includes VOCs. A metals issue has not been identified and including the metals on the analyte list may be of limited value.

6. Please include a proposal for sampling existing wells and screen points as applicable. Some of the wells that were sampled in 1993, where contaminants were detected at levels of concern, were not re-sampled during the 1997 sampling event.

All of the existing monitoring wells within the South Klondike Area will be sampled for metals and VOCs as part of either of two efforts. These groundwater samples will be collected as either part of this South Klondike Area groundwater sampling event or as part of the complete Airport/Klondike sampling event. It is expected that the two sampling events will occur on relatively the same time frame (i.e., within one to three weeks of each other). Please note that no effort will be made to resample the existing Geoprobe points that were installed in 1993 by Metcalf and Eddy. These points were intended to be short-term monitoring points (i.e., one or two months) and were not constructed with surface protectors, bentonite seals, or filter packs. The integrity of these points is certainly questionable and many have been destroyed. As such, the existing Geoprobe points have not been sampled since 1993.

7. Please evaluate the need to fill in the area between source areas.

The original groundwater sampling plan was provided to specifically address comments and concerns raised by EPA related to the westerly and southerly control on the overall VOC plume emanating from the South Klondike Area. Unless EPA has any additional comments or concerns, the original groundwater sampling plan along with the modifications contained herein will be implemented.

Along the western side of the east unnamed tributary to Pewterpot Brook and Along the eastern side of the east unnamed tributary to Pewterpot Brook

1. Apparently the clay surface has not been defined in this area; it is assumed that it will be defined as the well points are installed, otherwise, clarify at what depths samples will be collected.

The clay surface has not been defined with the use of geophysical means as had been done for the majority of the South Klondike Area. Information on the clay surface as ranging from 13 to 15 feet below ground surface is available from the boring logs for the monitoring wells in this area. The groundwater samples will be collected at two depths including just into the water table and just above the top of the clay surface. The top of the clay surface will be confirmed by the collection of soil samples from the boring in continuous 2-foot intervals to the top of the clay surface.

Along the southern edge of the VPSA

1. The existing groundwater data for this area shows vinyl chloride at levels above the RSR industrial and residential volatilization criteria (by an order of magnitude at SK-GP-38, SK-GP-39, SK-GP-40) and within 100' of Pratt's property boundary (SK-GP-40). It looks as though at least vinyl chloride has spread farther south than the other PCE breakdown products or the PCE itself (although the other constituents have moved farther south than the plume maps show). As a result, please consider the following:

- The proposed groundwater sampling locations are not far enough south to determine the extent of the vinyl chloride plume.

Five additional Geoprobe screenpoint groundwater sampling locations will be completed as a third parallel line approximately 100 feet to the south of the other two lines of sampling locations. This additional line of sampling locations will be perpendicular to the East unnamed

tributary to Pewterpot Brook and will further supplement data along the southern, side-gradient portion of the contaminant plume immediately adjacent to the neighboring property line.

- The proposed sampling depths may not be sufficient to characterize the contamination south of the VPSA. Consider permanent nested wells for complete coverage of the saturated zone between the water table and the clay layer.

The groundwater samples will be collected at two depths including just into the water table and just above the top of the clay surface. The top of the clay surface will be confirmed by the collection of soil samples from the boring in continuous 2-foot intervals to the top of the clay surface. Given the thin saturated thickness (i.e., 12 to 15 feet) in this area of the Site, the groundwater data collected should be sufficient to supplement the existing data for contamination characterization.

- A map showing the vinyl chloride plume should be developed.

A map based on vinyl chloride will be developed as requested. Previous mapping had been created based on tetrachloroethene and 1,1-dichloroethene since these were the major contaminant and degradation product, respectively.

- Analyze VOCs samples as soon as possible to increase the accuracy of sample results.

As requested, rush turnaround times can be requested of the P&W laboratory contractor. However, rush turnaround times have additional costs associated with them, as much as double for seven to five days turnaround times depending on the laboratory. Depending on the laboratory work load, the faster turnaround times may or may not be possible. Regardless, the turnaround times will be within the times specified in "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", EPA Publication SW-846.

2. The sampling in this area should key on both dissolved phase and the potential for DNAPL.

The groundwater sampling conducted as part of this effort will focus on both the dissolved phase as well as the possibility for dense non-aqueous phase liquid (DNAPL)

Tie-down Area

- Please provide a map showing the proposed groundwater sampling locations. The locations cannot be reviewed without the map.

The groundwater sampling identified for the Tie-down Area including Fire Training Area A and the underground storage tanks will be conducted as part of this effort. In the Tie-down Area, six Geoprobe screenpoint groundwater sampling locations will be completed along two parallel lines consisting of three Geoprobe screenpoint groundwater sampling locations each. One of these two lines of sampling locations will be adjacent to the western edge of, and parallel to, Fire Training Area A. The other line of sampling locations will be adjacent to the eastern edge of, and parallel to the East unnamed tributary to Pewterpot Brook. The map showing the proposed locations will be revised and submitted.